

## Selenium Deficiency

### *The Problem:*

**65% of California cattle are at risk of Selenium deficiency**

**Selenium deficiency causes health problems in cattle such as:**

**White Muscle Disease  
Abortions  
Retained Placenta  
Infertility  
Diarrhea  
Weight loss  
Illthrift/Rough haircoat  
Lowered Immune Function**

**Selenium deficiency decreases performance in cattle:**

**Decreased weight gains  
Decreased weaning weights  
Decreased response to vaccines  
Increased risk of disease  
Decreased feed efficiency**

**Selenium deficiency in cattle can be easily determined from a simple blood sample sent to the state veterinary diagnostic laboratory**

**PACIFIC TRACE  
MINERALS INC.**



## *Se 365* Selenium Bolus

### *The Solution:*

**Prevents Selenium deficiency**

**Provides supplemental Selenium for 1 year in a slow-release form for safety and effectiveness**

**Dose: One (1) bolus per animal/year**

**Safe for cattle 3 months & older**

**The *Se 365* bolus can be given at the same time as the copper bolus, the two products do not interfere with each other**

**Beneficial for calves, stockers, cows & bulls**

**Can be given at any time of the year**

**The *Se 365* bolus is resistant to cracking or breaking**

**Inexpensive: less than a penny/day**

*Available from:*

California Cattlemen's  
Association  
1221 H Street  
Sacramento, CA 95814  
(916) 444-0845

## COMMON QUESTIONS ABOUT THE PTM *Se 365* BOLUS

*-How do you give the Bolus?*

The bolus is designed to be given with a standard balling gun. No special equipment is needed.

*-What happens to the bolus in the cow or calf?*

It sits in the rumen and slowly releases selenium. It doesn't dissolve and resides there much as a magnet would.

*-Why is the same size bolus given to adult cattle and calves?*

The *Se 365* bolus provides the maximum allowable amount of selenium and this level is safe for all ages of cattle. Also, the growing calves have a greater need for selenium than the adult cattle.

*-If I give the *Se 365* bolus to my cow, how will she pass selenium on to her calf?*

Selenium is passed on to the calf during pregnancy very efficiently. The calf will be born with normal levels of selenium if the cow has normal levels. However, at 3-5 months of age, the calf will run out of selenium because selenium isn't transferred well through the milk. In selenium deficient areas, both the cow and the calf should receive the bolus.

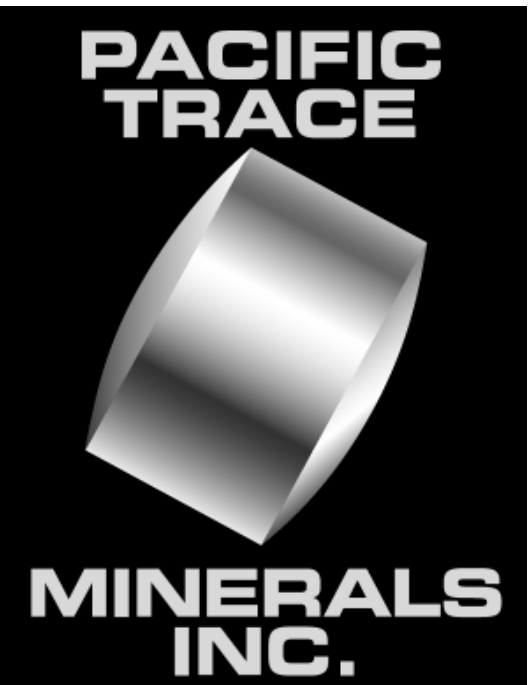
*-If a cow is given a *Se 365* bolus every year, will it harm her?*

No. Multiple boluses sit in the rumen and do not cause harm or discomfort.

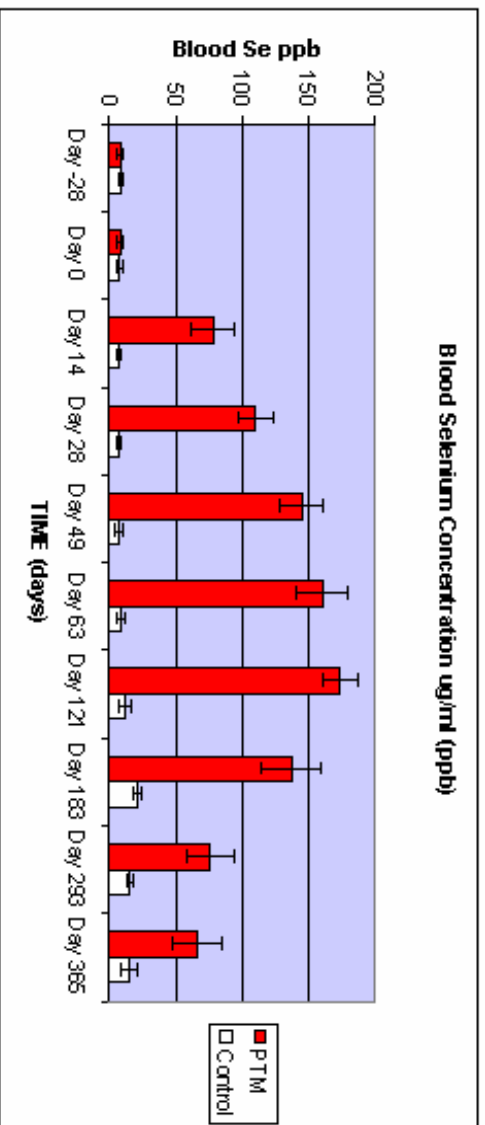
*-Where can I get more information on selenium deficiency?*

**Visit:**

<http://animalscience.ucdavis.edu/extension/mineralproject/>



**Se 365 BOLUS**  
SELENIUM SUPPLEMENT



This graph represents data from a one year study on selenium deficient heifers done at Sierra Field Station. All the heifers were run together on pasture or foothill range and exposed to exactly the same conditions. There were 19 control heifers and 18 heifers given one PTM Se 365 bolus on day 0. Blood samples were taken at the intervals shown and analyzed for selenium concentration. The control heifers remained very Se deficient for the entire year. The PTM treated animals showed immediate increases in blood Se levels by day 14 and remained above the 40 ppb level for the entire year (below 40 ppb is considered Se deficient).